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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,320	05/23/2007	Michiel Christiaan Rombach	3135-062156	6948

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THE WEBB LAW FIRM, P.C.
ONE GATEWAY CENTER
420 FT. DUQUESNE BLVD, SUITE 1200
PITTSBURGH, PA 15222

EXAMINER

LEVINE, JOSHUA H

ART UNIT	PAPER NUMBER
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3774

NOTIFICATION DATE	DELIVERY MODE
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04/09/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@webblaw.com

Office Action Summary

Application No.

10/589,320

Applicant(s)ROMBACH, MICHIEL
CHRISTIAAN**Examiner**

JOSHUA LEVINE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 13 and 25-37 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 13 and 25-37 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. This office action is responsive to the amendment filed on 04/27/2010. As directed by the amendment: claim 13 has been amended, claims 14-24 have been cancelled, and new claims 25-37 have been added. Thus, claims 13 and 25-37 are presently pending in this application.

Response to Arguments

2. Applicant's argument with respect to claim 13 has been considered but is moot because the arguments do not apply to any of the references being used in the current rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Section 33(a) of the America Invents Act reads as follows:

Notwithstanding any other provision of law, no patent may issue on a claim directed to or encompassing a human organism.

4. Claim 29 is rejected under 35 U.S.C. 101 and section 33(a) of the America Invents Act as being directed to or encompassing a human organism. *See also Animals - Patentability, 1077 Off. Gaz. Pat. Office 24* (April 21, 1987) (indicating that human organisms are excluded from the scope of patentable subject matter under 35 U.S.C. 101). The limitation of "are connected to the ciliary muscle of the eye" is directed towards a part of the body.

Claim Rejections - 35 USC § 112

5. Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear from the specification how the lenses rotate as they appear to be rotationally fixed in the drawings 2A-7B.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13 and 25-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4994082 (herein referred to as "Richards") in further view of USPN 3305294 (herein referred to as "Alvarez").

8. Regarding claim 13, Richards substantially disclosed all the elements of the claim including an artificial intraocular lens of variable optical power comprising at least two optical elements 200/202 (progressive lenses, figure 5), of which at least one can be shifted relative to any other element in a direction extending perpendicular to the optical axis when in the eye (lens 200 moves to the left along the X axis and lens 202 moves to the right along the X axis, c9:L41-47), wherein the optical elements, in combination, form a lens of which the optical power varies depending on the relative

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position of the optical elements (different part of the lenses overlap depending on ciliary contraction, c9:L28-34) except wherein the shape of the surface of at least two of the optical elements includes a saddle shaped surface.

Alvarez teaches variable powered spectacles with two optical elements (lens 4 and lens 7, figure 5) wherein the shape of the surface of at least two of the optical elements includes a saddle shaped surface ($t = A(xy^2 + 1/3 x^3)$, c2:L15). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the saddle shaped lenses' of Alvarez for the purpose of providing "inexpensive, thin, and attractive variable- power" lens "that can be focused quickly and easily for sharp, substantially undistorted view throughout the field of vision at each setting" (c1:L15-19).

9. Regarding claim 25, Richards disclosed wherein at least one of the optical elements comprises a diffraction structure (Fresnel lens, C7:L26-28).

10. Regarding claim 26, Alvarez teaches at least one saddle shaped surface wherein the surface is adapted such that the combination of optical elements provides variable optical power at rotation of at least one optical element relative to at least one other optical element (variable- power spectacles, c1:L15-19). See claim 13 for motivation.

11. Regarding claim 27, Alvarez teaches wherein the saddle shaped surface is according to the formula $t = A(xy^2 + x^3 / 3)$ ($t = A(xy^2 + 1/3 x^3)$ (c2:L15), with t the lens thickness of the optical element in the direction of the optical axis, x the coordinate in the direction of the motion of the optical elements, y the coordinate in the direction perpendicular to the optical axis and to the x -direction and A a constant. See claim 13 for motivation.

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12. Regarding claims 28 and 29, Richards disclosed a driving means 224 (arm, figure 5) adapted to execute a movement of at least one of the optical elements relative to the other element wherein the driving means are connected to the ciliary muscle of the eye and adjusting means 230 (arm, figure 5) wherein the adjusting means are adapted to provide adjustment of the resting state of the artificial intraocular lens.

13. Regarding claim 30, Richards disclosed wherein the optical elements are each connected to an elastic haptic 224 (arm, figure 5) and a non-elastic haptic 220 (arm 220 is more resistant to flex, c8:L51-54).

14. Regarding claim 31, Richards disclosed wherein the elastic haptic of one element is connected to the non-elastic haptic of the other element through a connecting anchor 242 (curved bridge, figure 5).

15. Regarding claim 32, Richards disclosed wherein the elastic haptics and the non-elastic haptics are connected to opposite sides of the optical elements (as shown in figure 5).

16. Regarding claim 33, Richards disclosed wherein the connecting anchor is adapted to be connectable to a part of the capsular bag of the eye (implanted with an accommodation capability, c2:L9-14).

17. Regarding claim 34, Richards disclosed wherein the lens is adapted to provide refractive correction of the base optical power of the eye (refract the light rays, c14:L35-40).

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18. Regarding claim 35, Richards and Alvarez disclosed and teach wherein the lens is adapted to provide correction of higher order refractive errors (the claim's properties are obvious if its structure is rendered obvious).

19. Regarding claim 36, Richards disclosed wherein the lens is an accommodating intraocular lens (accommodation capability, C2:L9-14).

20. Regarding claim 37, Richards disclosed wherein the lens is an adjustable intraocular lens (adjustable-power intraocular lens, c2:L24-30).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of PG Pub no. 20040158322, disclosed a set of optics with haptics that translates right and left inside a lens capsule to provide accommodation (see figures 5,6,8,10 and 12).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA LEVINE whose telephone number is (571)270-5413. The examiner can normally be reached on Monday-Thursday 7:30am-5:00pm ETA.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. L./

Examiner, Art Unit 3774

/THOMAS J SWEET/

Supervisory Patent Examiner, Art Unit 3738